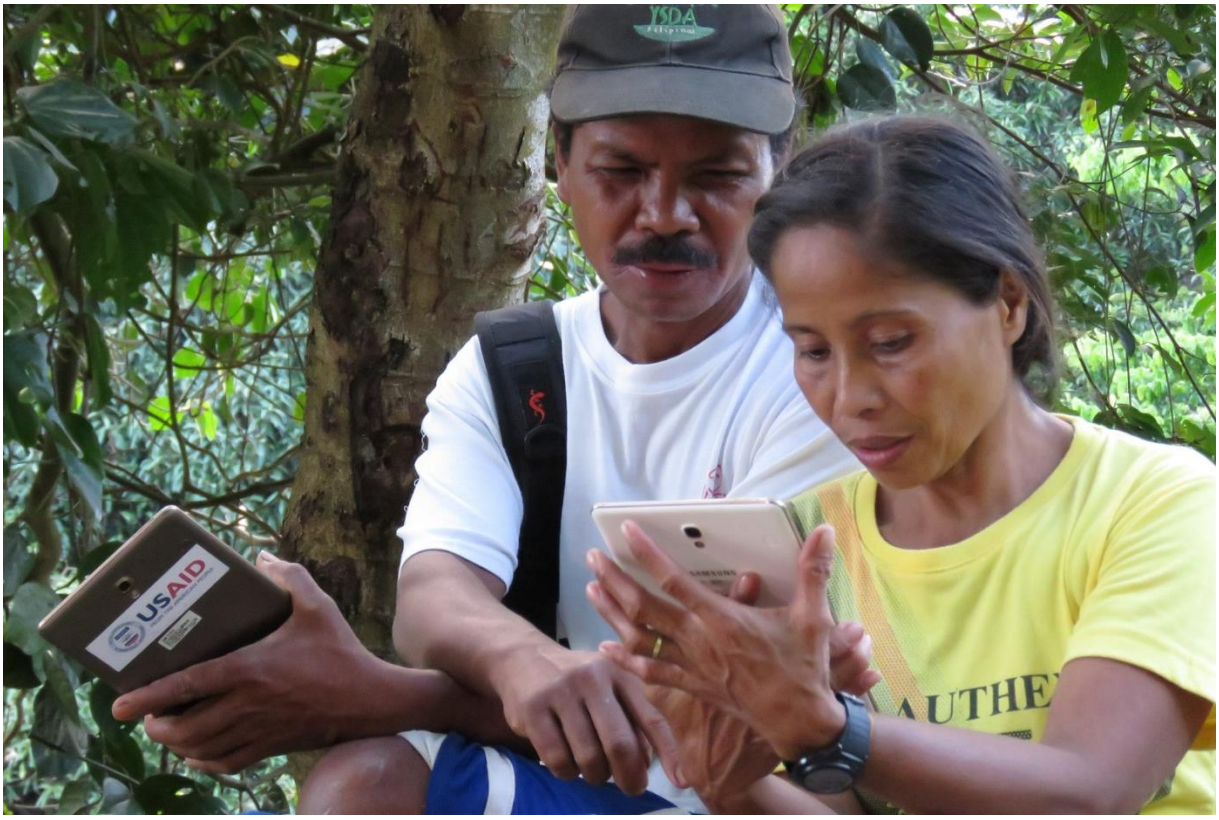
ANNUAL REPORT

JANUARY TO DECEMBER 2016

Biodiversity and Watersheds Improved for Stronger Economy and Ecosystem Resilience (B+WISER)



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Annual Report
January to December 2016

Philippines Biodiversity and Watersheds Improved for Stronger Economy and Ecosystem Resilience (B+WISER) Program

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Local Government Units and Agencies

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Cover photo:
In the Philippines, forest patroller Danilo dela Rosa (left), who belongs to the Dumagat tribe, and Myrna Bayon (right) record patrol data using a tablet as part of the Lawin Forest and Biodiversity Protection System.

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ACRONYMS

B+WISER	Biodiversity and Watersheds Improved for Stronger Economy and Ecosystem Resilience
CDCS	Country Development Cooperation Strategy
CDO	Cagayan de Oro
CENRO	Community Environment and Natural Resources Office
CLUP	Comprehensive Land Use Plan
CY	Calendar Year
DENR	Department of Environment and Natural Resources
DSWD	Department of Social Welfare and Development
ECIC	Environmental Crime Investigation Course
EDC	Energy Development Corporation
EMMP	Environmental Mitigation and Monitoring Plan
FCA	Forest Conservation Area
FMB	Forest Management Bureau
FPO	Forest Protection Officer
FRENDS	Friends of the Environment for Development and Sustainability
GPH	Government of the Philippines
GSA	Guided Self-Assessment on the State of Local Environmental Governance
IDC	Instructor Development Course
IP	Indigenous People
KGV	Kitanglad Guard Volunteer
KIN	Kitanglad Integrated NGOs
KWFR	Kaliwa Watershed Forest Reserve
LGU	Local Government Unit
MANP	Mount Apo Natural Park
MC	Memorandum Circular
METT	Management Effectiveness Tracking Tool
MKNP	Mount Kanlaon Natural Park
MKRNP	Mount Kitanglad Range Natural Park
NFMP	National Forest Monitoring Program
NNNP	Northern Negros Natural Park
NPC	National Power Corporation
NRM	Natural Resources Management
NSMNP	Northern Sierra Madre Natural Park
PA	Protected Area
PAMB	Protected Area Management Board
PDP	Philippine Development Plan
PENRO	Provincial Environment and Natural Resources Office
PES	Payment for Ecosystem Services
PNP	Philippine National Police
REDD+	Reducing Emissions from Deforestation and Forest Degradation Plus
SDM	Species Distribution Modelling
SMART	Spatial Monitoring and Reporting Tool
TOC	Theory of Change
USAID	United States Agency for International Development
USFS	United States Forest Service
WCS	World Conservation Society

INTRODUCTION AND PROGRAM OVERVIEW

The five-year Philippines Biodiversity and Watersheds Improved for Stronger Economy and Ecosystem Resilience (B+WISER) Program was designed by the Department of Environment and Natural Resources (DENR) Technical Working Group in collaboration with the United States Agency for International Development (USAID). The Program's technical assistance and service contract was awarded to Chemonics International, Inc. on 28 December 2012.

The B+WISER Program broadly contributes to the Government of the Philippines (GPH)-U.S. Partnership for Growth and USAID Country Development Cooperation Strategy (CDCS) for the Philippines by focusing on inclusive and broad-based economic growth and sustainable ecosystem services. The B+WISER Program contributed to the development objectives included in Chapter 10 of the Philippine Development Plan (PDP) 2011-2016. In addition, the program is envisioned to contribute to the development objectives set in the new 2017-2022 PDP. It specifically feeds into the expected outcomes described in Chapter 20 of the new PDP, "Ensuring Ecological Integrity, Clean and Healthy Environment." The Program's performance indicators and targets are aligned with the DENR Major Final Outputs.

In September 2016, USAID approved a costed expansion of program activities to allow for implementation of the Lawin Forest and Biodiversity Protection System (Lawin) in at least seven hotspot regions beyond the original seven sites. With the expansion, the Program now aims to improve the management of 2,420,000 hectares of protected areas, watersheds, and natural forests through the implementation of Lawin. Lawin is an innovative approach to biodiversity conservation that was piloted in the seven original

Program sites. The expansion supports the institutionalization of Lawin and other climate-change related initiatives within the DENR for national scale implementation.

The B+WISER Program prioritizes four intermediate results to improve natural resource management (NRM) and environmental services that complement and support the GPH in implementing environmental policies and programs and complement the CDCS Development Objective 3: Environmental resilience improved.

The intermediate results, which are also the Program's objectives, are to:

- Conserve biodiversity in forest areas;
- Reduce forest degradation in priority watersheds;
- Enhance capacity to conserve biodiversity, manage forests, and monitor low emissions development; and,
- Increase capacity for disaster management in highly vulnerable areas.

The intervention logic of the Program has been further recast and simplified using the Theory of Change (TOC) model to incorporate the changes brought about by DENR's integration of Lawin in its national forest protection strategy. The updated TOC results chain diagram integrates the original two primary interventions (strengthening law enforcement and supporting forest restoration) into one (strengthening forest protection system) and two of the original enabling interventions (developing partnerships with public and private sectors and developing and supporting Payment for Ecosystems Services (PES) mechanisms and strategies) into one (conservation financing). Program activities, therefore, are now organized under six program interventions, which are still categorized into two types:

a) Primary intervention – strengthens forest and biodiversity protection system that directly contributes to enhancing the viability of a biodiversity target.

b) Enabling interventions – allow stakeholders to carry out the primary intervention more effectively, and include: 1] supporting capacity development, 2] preparing/enhancing resource management plans, 3] strengthening policy and governance, 4] conservation financing, and 5] conducting communication campaigns.

The Program also conducts cross cutting activities to support national Reduced Emissions from Deforestation and Forest Degradation Plus and Greenhouse Gas Inventory programs, mainstreaming gender and inclusion, and conducting monitoring and evaluation.

At the conclusion of the B+WISER Program, main results will include:

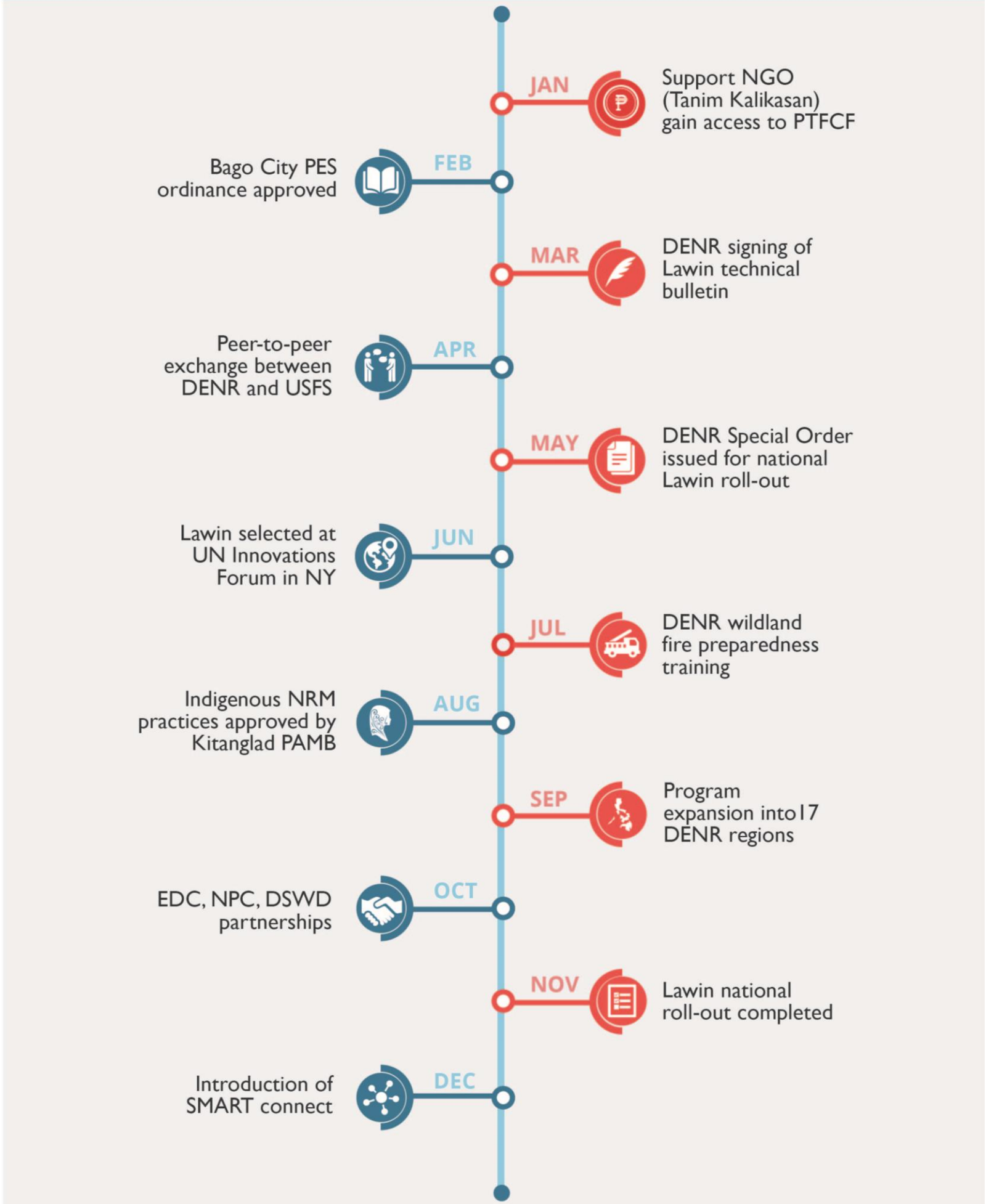
1) Improved management and governance of 2,420,000 hectares (ha) of Key Biodiversity Areas and their associated watersheds;

2) 478,000 ha of terrestrial and mangrove forests under restoration initiatives;

3) 6.28 million metric tons of greenhouse gases (in CO_2 equivalent) sequestered or reduced after the life of the Program; and

4) $5 million leveraged from public, private and other sources.

CY 2016 Key Milestones



PROGRAM ACCOMPLISHMENTS: JANUARY TO DECEMBER 2016

The Program continued to exhibit strong performance during calendar year (CY) 2016 and made significant inroads to advancing forest and biodiversity conservation in the Philippines. DENR's adoption of Lawin and its implementation, which highlighted a tighter link between forest threats monitoring and support to active forest restoration initiatives and environmental law enforcement (ELE), paved the way for the Program to achieve and even surpass most result targets for the year. On average, the Program performance for the year represented 185% of the targets as several indicators were met or surpassed by significant margins. The Program met or surpassed the annual targets for all indicators, except: number of hectares of supported forest restoration initiatives and amount of CO_2 equivalent reduced and/or sequestered in metric tons. These two indicators achieved more than 80% of their respective targets.

During the year, the Program expanded its activities beyond its original seven sites upon the request of DENR for a national roll-out of the Lawin system, which was approved by USAID under a costed modification. The Program completed the national roll-out of Lawin and site-level coaching for forest rangers and data managers in 17 regions by involving 170 DENR offices at the community and provincial levels. Total patrol effort logged exceeded 6,000 kilometers, generating more than 70 GB of patrol data. With the Program's assistance, the DENR Central Office accessed and analyzed this data to produce a national report. This process will be improved through the use of SMART Connect, a web-based platform that allows seamless aggregation of patrol data across provincial, regional and national levels. The Program introducted SMART Connect in December and will continue its deployment to improve data handling at all levels and the effectiveness of identifying and responding to threats.

Key results in CY 2016

Lawin adoption and roll-out throughout the Philippines

After the issuance of the Lawin Technical Bulletin on March 10, 2016, the system was successfully rolled out in 17 out of 18 regions. This deployment began with capacity building workshops for DENR field personnel on formulating forest conservation area and patrol plans, recording observations during patrols, analyzing patrol data and responding to observed threats. Following the workshops, the Program provided individual coaching to forest rangers and data managers at the Community Environment and Natural Resources Offices (CENRO) to record patrol observations using the CyberTracker app and analyze it using Spatial Monitoring and Reporting Tool (SMART). Fourteen Program teams in the original and expansion sites worked with CENROs and Provincial Environment and Natural Resources Offices (PENRO) to review patrol data, which will eventually be done through SMART Connect, and to identify threats to the natural forest which will then be addressed at either the provincial or regional levels. To support the nationwide roll-out, DENR spent PhP 30 million on smart phones for forest rangers and on training activities. Furthermore, the agency allocated additional PhP 100 million to augment the regular forest protection budget to strengthen the implementation of Lawin in 2016 and 2017. As a result of DENR's adoption of Lawin, Program interventions in the original B+WISER sites are being aligned with the

agency's cascading organizational structure from the CENRO, PENRO, and Regional Offices to the Central Offices to embed program innovations into DENR operations at various levels to enhance the prospect of these being sustained beyond the life of project. This means that forest conservation area plans previously formulated for smaller areas are being incorporated into CENRO-based plans, data models are being harmonized, and patrol planning by local government units (LGUs) and community volunteers, funding, and threat responses are being coordinated. DENR's Forest Management Bureau (FMB) leads these efforts with support from B+WISER.

International recognition of Lawin

In June 2016, Lawin was recognized by the United Nation as one of the innovations that could potentially make significant contribution to achieving the Sustainable Development Goals during the First United Nations Forum on Science, Technology and Innovation in New York.

Development of conservation financing models

In 2016, the Program developed a PES model and two user fee models to foster sustainable conservation financing in the country. As a PES model, Bago City, in the province of Negros Occidental, imposed an environmental fee on water users (businesses and households) residing outside the protected area (PA), to complement user fees for forest protection from economic and recreational activities conducted in protected areas (PA). User fee models were also developed in Mount Kanlaon Natural Park, Northern Negros Natural Park and Fuyot Springs Natural Park in Ilagan City, province of Isabela. The Program entered into partnerships with a public National Power Corporation (NPC) engaged in power generation to implement Lawin as part of the forest protection initiatives in their areas of operation. The Program also forged a Global Development Alliance with the Energy Development Corporation (EDC), the largest producer of geothermal energy in the Philippines and the second largest in the world, to protect watersheds under EDC's care through Lawin. Through the partnership, more than 70,000 ha of natural forest within EDC's areas of operation could be placed under improved protection, including conservation areas in North Cotabato, Negros Occidental and Leyte provinces. EDC will contribute more than PHP 6.5 million to support the protection and conservation efforts, while the Program will provide more than PHP 2 million in technical assistance to help establish and implement Lawin. The Program started training EDC forest rangers in Lawin in December.

Integration of indigenous knowledge in natural resource management

In August, the Program celebrated International Day of the World's Indigenous People (IP) in Bukidnon. During the festivities, B+WISER, through its grantee the Kitanglad Integrated NGOs (KIN), presented findings from Program-funded cultural profiling research to the Mt. Kitanglad Range Natural Park (MKRNP) Protected Area Management Board (PAMB). The research, which engaged three of the seven IP groups for whom Mt. Kitanglad is the ancestral domain, is the first written documentation on tribal forest management practices in the Bukidnon area. The document preserves tribal knowledge and helps harmonize government and tribal protection activities in areas where there are ancestral domain claims or titles. The MKRNP PAMB adopted a resolution to integrate the documented tribal norms and policies into the park's management processes.

Primary intervention

Strengthening Forest and Biodiversity Protection System

Through the nationwide roll-out of the Lawin system, the Program significantly strengthened forest and biodiversity protection in the Philippines in CY 2016. The Program worked with the FMB and Biodiversity Management Bureau (BMB) to finalize the draft of the Technical Bulletin and Manual of Procedures for Lawin. On March 10, 2016, BMB Director Mundita Lim and FMB Director Ricardo Calderon signed the Joint FMB-BMB Technical Bulletin No. 2016-01 with the Manual of Procedures on Lawin implementation attached. The signing was witnessed by the DENR Undersecretary for Field Operations, Demetrio Ignacio. After the Technical Bulletin was issued, DENR established the Lawin system in 17 of 18 regions. This was a major shift from the agency's original plan to focus Lawin only in hotspot regions with frequent incidents of illegal logging. Subsequently, a series of regional roll-out trainings, jointly implemented by FMB and B+WISER, started in Region 13 in April and culminated in the National Capital Region (NCR) in November. During the NCR training, all DENR regional planning and budget officers participated to ensure incorporation of Lawing in the 2017 plans and institutionalization as part of DENR's regular field operations. Starting in September, the Program expanded Lawin implementation to all DENR-operated regions in the country. By the end of the year, more than 2,000 forest rangers, forest technicians and resource managers were trained in Lawin.

The on-going close partnership between B+WISER and DENR continued as the Program trained FMB staff to become Lawin coaches.

To support the establishment of an integrated system under DENR's leadership, the Program is integrating the forest conservation area plans in the original sites (focused on protected areas) to the wider CENRO-level conservation area plans of the agency. This means aligning the respective data models being used in SMART software applied by the system and coaching data managers at all levels.

Total patrol effort logged as of December 15, 2016 had reached 6,376 kilometers, with sixty percent of the CENROs submitting patrol data (See Figure 1). The CENROs that submitted patrol data are responsible for managing more than 3.9 million ha of natural forest.

With technical assistance from the World Conservation Society (WCS), the Program introduced SMART Connect to DENR in December. The web-based platform allows for seamless patrol data aggregation across provincial, regional and national levels and facilitates data management at these levels to aid forest protection. The establishment of SMART Connect will be piloted in Regions 3 and 10 in January 2017.

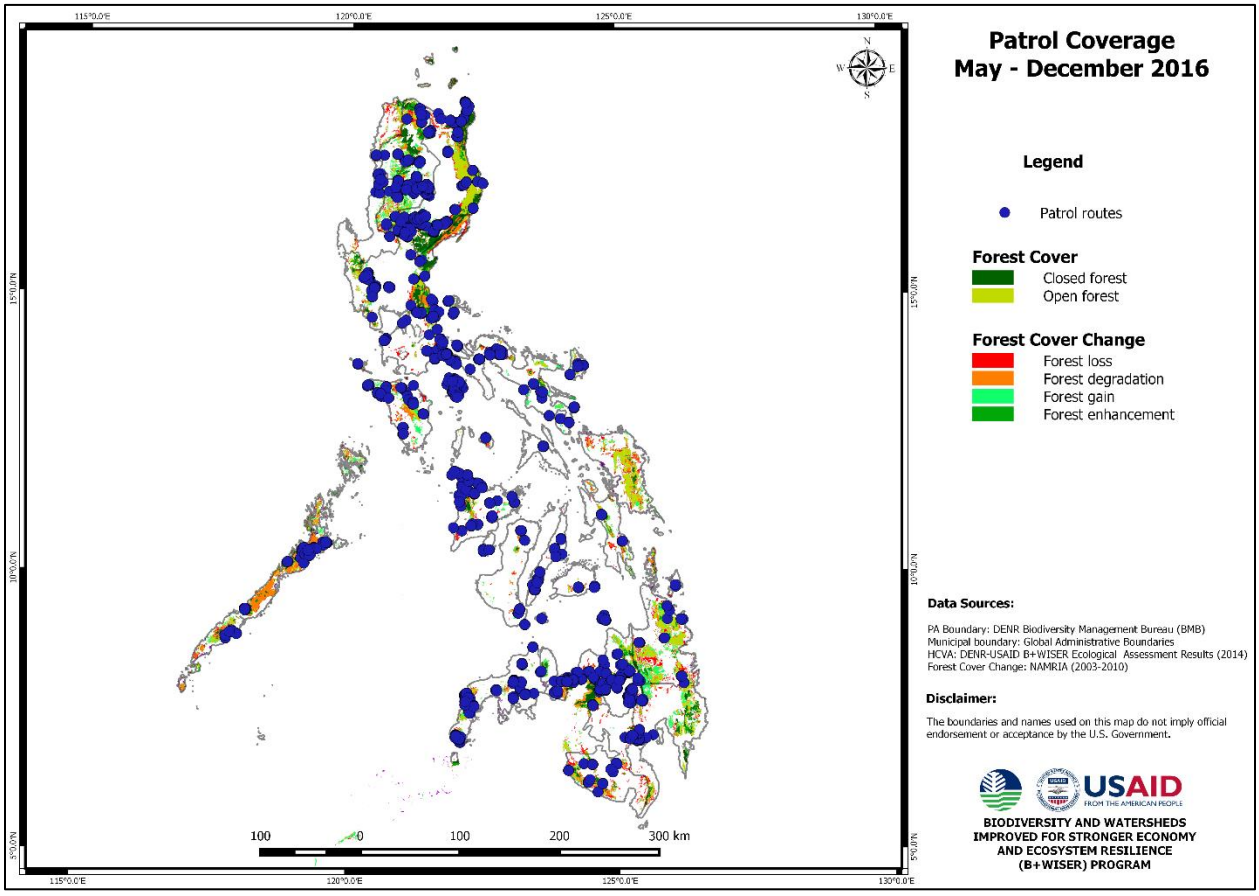


FIGURE 1. PATROL COVERAGE BY TRAINED LAWIN FOREST RANGERS

From February to May, the Program worked with DENR, LGUs and IP stakeholders in the original program sites to set up the response mechanism to address observed threats in the conservation areas of Northern Sierra Madre Natural Park (NSMNP), Kaliwa Watershed Forest Reserve (KWFR), Mt. Kanlaon Natural Park (MKNP), MKRNP, Northern Negros Natural Park (NNNP), and Mt. Apo Natural Park (MANP). The PAMB supported resolutions and LGUs prepared ordinances to formally define the process for response to observed threats. In September, the Program piloted a DENR-led process to respond to observed threats in four CENROs (Manolo Fortich, Talakag, Don Carlos, and Valencia City) in Bukidnon province in Region 10. The pilot then informed a national-level workshop on coaching and mentoring DENR enforcement and legal division personnel on threat response, from all the regions in October. The workshop resulted in the preparation of draft protocols to respond to the top five observed threats nationwide and the identification of operational, logistical and institutional constraints and issues that weaken current response capacity. Figure 2 below presents the top five threats observed by DENR forest rangers from April through to December 2016.

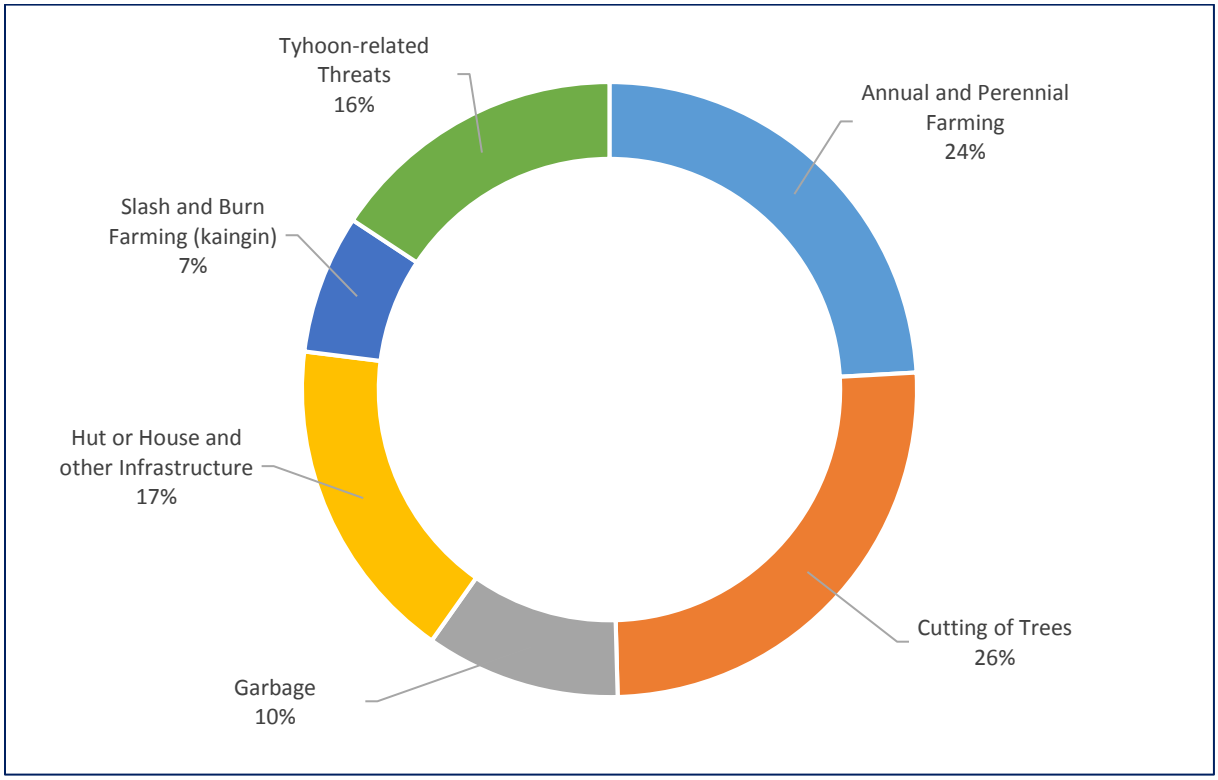


FIGURE 2. TOP AGGREGATED THREATS OBSERVED BY DENR FOREST GUARDS (N = 821)

Enabling Interventions

Support capacity development

Lawin roll-out workshops

B+WISER conducted seventeen four-day regional Lawin roll-out workshops and trained 2,041 DENR forest rangers and forester technicians (1,517 males, 74% and 524 females, 26%) to implement Lawin (Table 1).

TABLE 1. REGIONS WHERE LAWIN WAS ROLLED OUT DURING THE YEAR

April	May	June	July	August	September	October
Region 13	Region 10 Region 11	Region 2 Negros Island Region Region 5	Region 4A Cordillera Administrative Region Region 3 Region 6	Region 4B (Mindoro, Marinduque, Romblon) Region 7 Region 12	Region 9 Region 8 Region 1 Region 4B	National Capital Region

CENRO and PENRO-level coaching on Lawin implementation

Together with the FMB, the Program completed CENRO-level coaching in all 170 CENROs and implementing PENROs in the 17 DENR regions in the country (Figure 3).

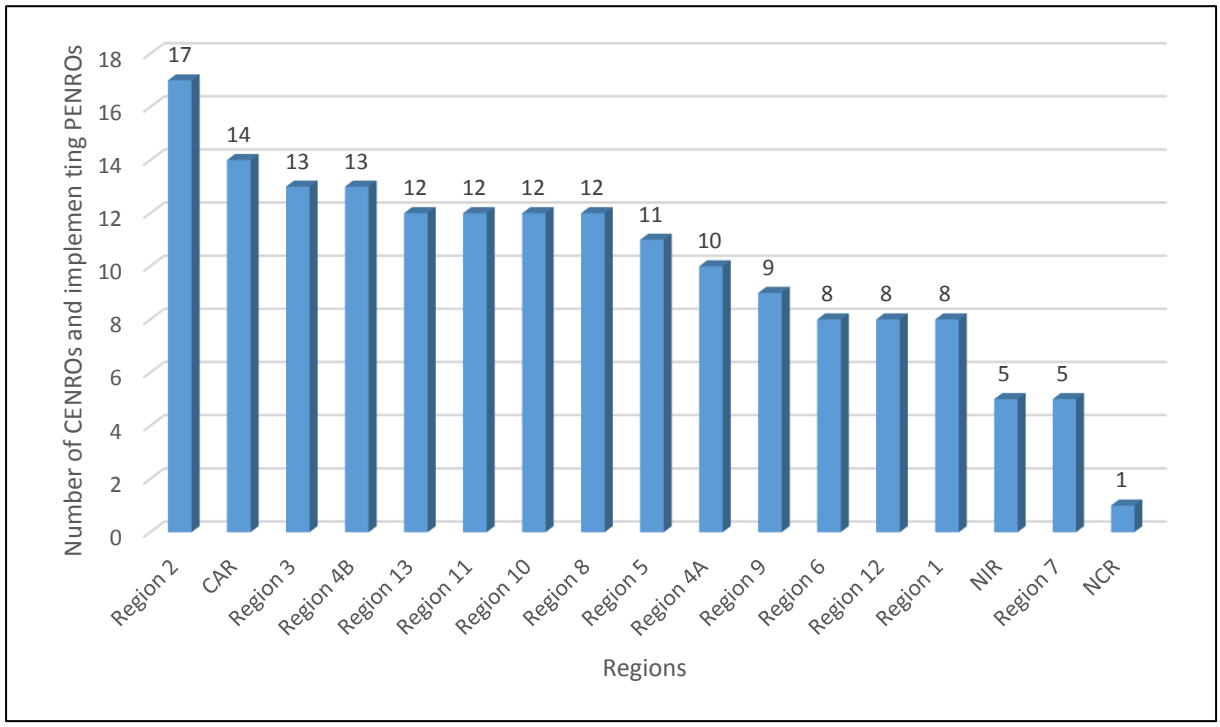


FIGURE 3 NUMBER OF CENROS AND PENROS, BY REGION, THAT COMPLETED LAWIN SITE-LEVEL COACHING

Peer-to-peer exchange

In April, USAID Senior Deputy Assistant Administrator for Asia, Gloria Steele, met with Philippine's Department of Environment and Natural Resources (DENR) Secretary Paje and other DENR officials in Washington, DC. The exchange was hosted by USAID and the U.S. Forest Service and allowed for a direct interaction between top DENR officials and officials at key institutions in the U.S. Participants were able to share their respective strategies for forest landscape restoration, forest monitoring and conservation,

carbon accounting, institutional arrangements, and public private partnerships. The USAID-DENR-B+WISER Program presented the LAWIN Forest and Biodiversity Protection System as the national strategy for forest protection in the Philippines which received a positive feedback.

Training on environmental crime investigation

In collaboration with the Philippine National Police (PNP)-School of Investigation and Detective Development, U.S. Department of the Interior-International Assistance Program, and the U.S. International Crime Investigative Training Assistance Program, B+WISER conducted a specialized 25-day Environmental Crime Investigation Course (ECIC) and an Instructor Development Course (IDC). These courses focus on environmental laws and the overall criminal justice system in the Philippines and advanced environmental crimes investigation techniques such evidence gathering, crime-specific crime scene investigation, and procedural matters such as protocols for searches, arrests, detention, criminal prosecution and administrative adjudication. Thirty-five Leahy-vetted PNP personnel completed the ECIC and 27 of the 35 personnel went on to complete the IDC. These advanced training courses support inter-agency collaboration between PNP, DENR, LGUs, and other enforcement agencies to effectively respond to environmental violations observed during Lawin patrols.

Training on wildland fire preparedness for DENR.

In July, the Program in partnership with the U.S. Forest Service (USFS), trained 50 DENR and Bureau of Fire Protection (BFP) officials in forest fire management. Two fire experts from the USFS served as resource persons in the Basic Fire Training. The program for the training was designed with DENR to ensure it was sufficiently tailored to the Philippine context and met the needs of DENR. Through a combination of presentations, simulations, and role play, the training improved the knowledge and skills of key personnel in both agencies in wildland fire preparedness including planning for forest fires, to responding to forest fires, and recovery of damaged areas. The trained personnel will serve as focal persons in the event of forest fires and as resource persons during future fire trainings. The training was conceived by the DENR in response to a series of forest fires that broke out in Mt. Apo, Mt. Kanlaon, and Mt. Kitanglad in March and April 2016, three priority sites for the Program. Forest fires are one of the threats to natural forests that are observed and recorded by community forest guards trained to implement Lawin and are expected to worsen with climate change.

Riverbank monitoring application

The Program finished developing the Riverbank Monitoring Application to be used by LGUs within Quinali "A' Watershed. The Program piloted the app in five LGUs and coached their respective technical personnel how to conduct patrols, log observations, analyze data and generate reports. The app supports regular monitoring of riverbank conditions such as stability and soil erosion. Data gathered and analyzed provide local decision-makers with valuable information to inform strategies for riverbank protection to avoid landslides and minimize the impact of floods. Likewise, information gathered may serve as reference to design rehabilitation plans for destabilized riverbanks. Regular monitoring of riverbanks conditions, aided by the app, will greatly contribute to the disaster risks reduction efforts of concerned LGUs. One of the LGUs in Quinali (Libon) adopted the system and allocated funds for its implementation through a municipal council resolution. The other LGUs are expected to pass similar resolutions in early 2017.

Peer exchange - to learn about green charcoal production

In September, the Program supported Bago City's Environment and Natural Resources Officer and members of the Legislative Council to visit Tanay, Rizal to learn the processes and requirements to produce environmentally-friendly charcoal briquettes. The technology in Tanay allows wood and non-wood materials to be used to produce briquettes and is a more efficient alternative to traditional charcoal production, which requires the use of an entire tree. Bago City intends to establish a similar project to reduce pressure on the natural forests caused by making charcoal. They also want to create a local certification scheme for "green charcoal" produced from sustainable sources. The city also plans to use the technology to complement its sustainable fuelwood production project wherein they have already established 60 ha of *Gliricidia sepium* plantation as a means of livelihood for local people. The fuelwood plantation is located outside the conservation area and therefore helps reduce the pressure on the remaining forest inside the protected area within the territorial jurisdiction of Bago City. This scheme will be the first of its kind envisioned for northern Negros, which is hoped to create a working model to be adopted by other LGUs.

Enhance resource management plans

Eighty-two percent of the CENROs and implementing PENROs have completed draft Forest Conservation Area (FCA) Plans (Figure 4). These plans describe the natural forests in their respective areas, define the conservation objectives and targets, and establish the desired future forest condition and appropriate management interventions to achieve the conservation objectives. A draft Memorandum Circular (MC) for the process of reviewing and approving these plans was drafted after discussions with FMB. The draft MC will be reviewed by the FMB Director. The FCA plans in the original sites will be harmonized with the CENRO-based FCA plans because the natural forests in these areas overlap.

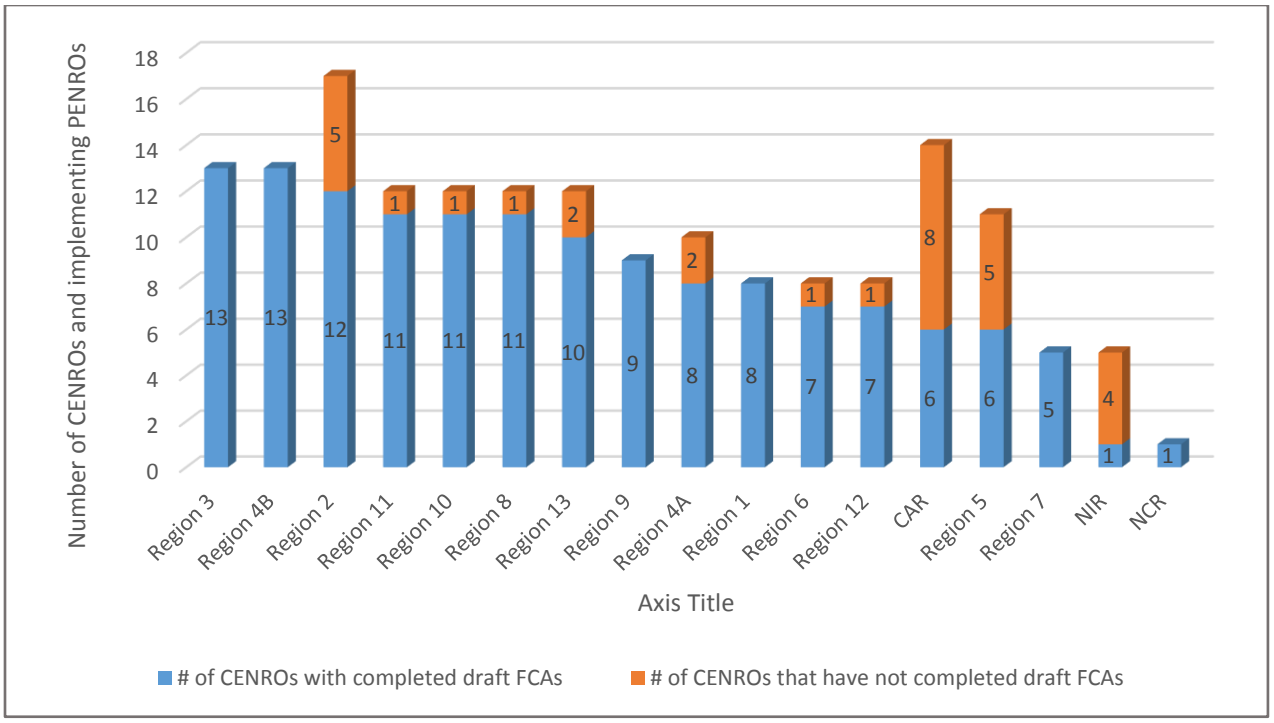
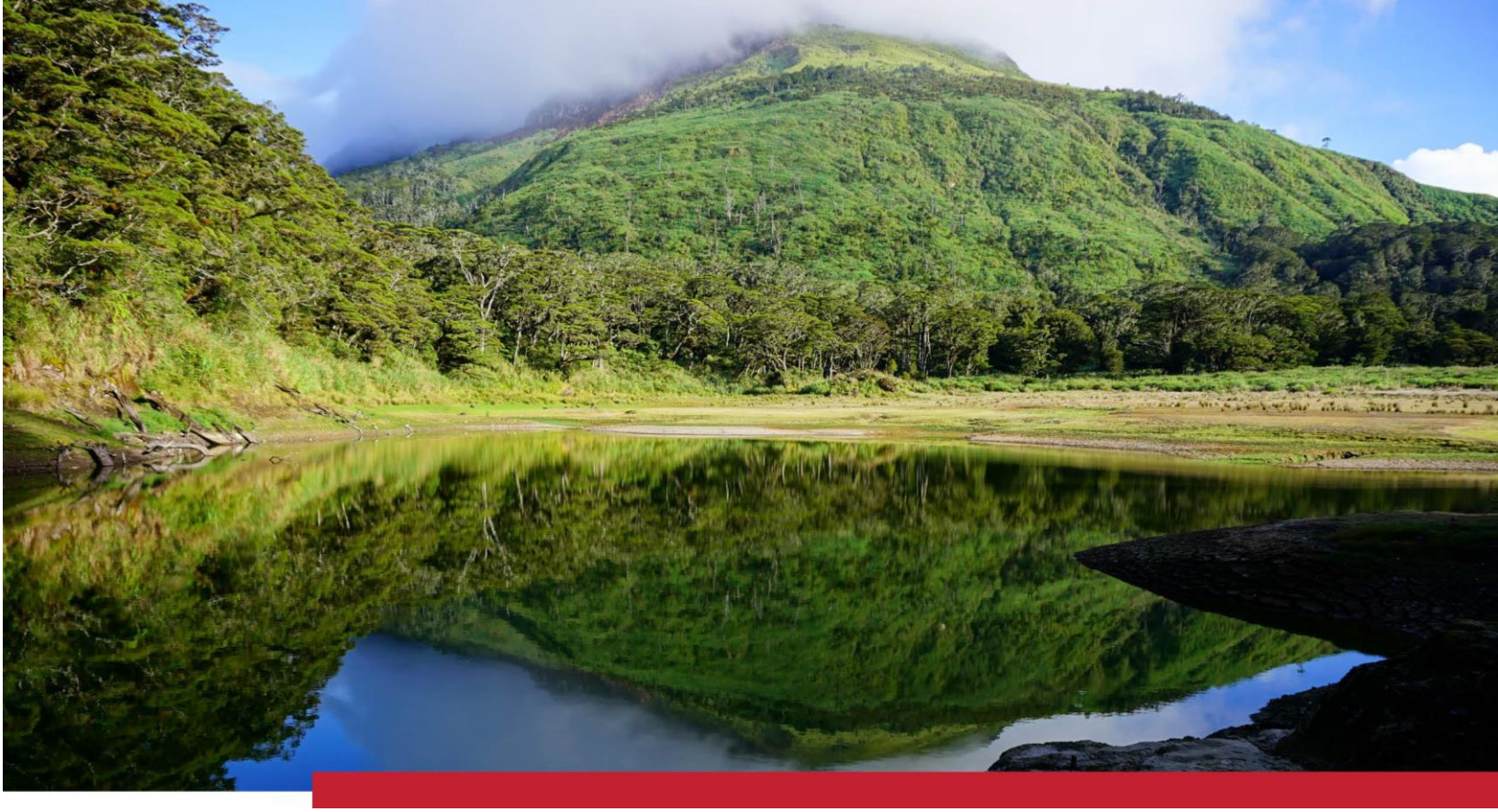


FIGURE 4. NUMBER OF CENROS AND IMPLEMENTING PENROS THAT HAVE COMPLETED AND NOT COMPLETED DRAFT FOREST CONSERVATION AREA PLANS

Except for Upper Marikina and MANP, all ten PAs in the original B+WISER sites updated their management plans by adopting the FCA plans, which include the implementation of Lawin. In Oriental Mindoro, where the natural forests are not located within the PA since it is a lake, the FCA plan will be reviewed and approved by the DENR. The Program helped formulate Forest Land Use Plans (FLUP) in the upper portions of the Cagayan De Oro River Basin region including the municipalities of Baungon, Libona, and Talakag through community mapping and profiling. FLUPs are expected to be completed by end of July 2017. The Program also supported the Tumauini LGU in Isabela to integrate the results of the climate vulnerability assessment done in Northern Sierra Madre Natural Park in the LGU's Comprehensive Land Use Plan. The LGU allocated resources to implement activities pertinent to the revision process that is still ongoing.



Strengthen policy and governance

Common Trekking Policy

In February, the Program reviewed the impact of implementing the Common Trekking Policy two years after it was approved by the MANP PAMB *en banc*. Key findings include:

- 39% increase in the amount of fees collected in 2015 (Php2,562,844.00) compared to 2014 (Php1,839,520.00) in spite of a 6% reduction in number of trekkers in 2015 (3,336 trekkers) compared to 2014 (3,551 trekkers)
- 96% increase in the combined income of porters and guides (From PhP 2,147,020 in 2014 to PhP 4,217,300.00 in 2015) with the full implementation of the increase in porter and guide fees.
- 115% increase in combined income (from PhP 1,085,220.00 in 2014 to PhP 2,328,200.00 in 2015) for IP porters trained by the Program. Some of the IP porters are also Lawin patrollers.
- 78% increase in combined income received by guides due to the increase in guide fees as stipulated in the common trekking policy.
- PhP 690,718.81 in mandatory contribution to the Integrated Protected Area Fund (IPAF) in 2015**.** There is not reliable data on mandatory contributions to the IPAF by LGUs prior to the common trekking policy. The common trekking policy fixed a 25% of total trekking fees collected as mandatory contribution to the IPAF.
- PhP 318,645 direct and mandatory contribution from the trekking fees to the IP communities with Certificate of Ancestral Domain Titles (CADTs) and Certificate of Ancestral Domain Claims (CADCs) where the trekking trails are located. An amount of 15% of trekking fees collected is mandatory contribution to the IP CADT and CADC holders.

Trail and camp management master plan

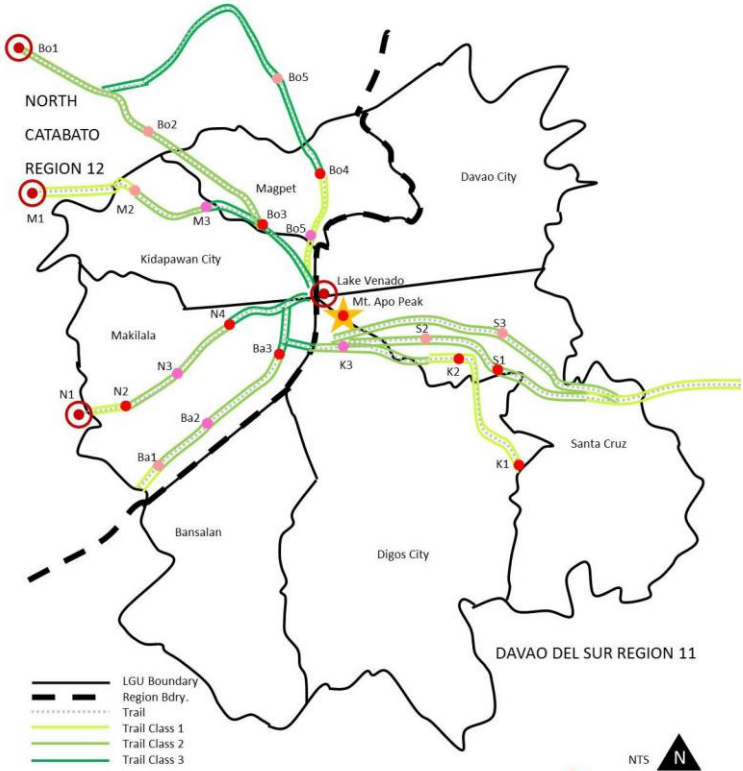
In May, the Program and USFS conducted a trail and camp assessment in Mt. Apo Natural Park. The assessment determined classifications for trails and camp areas in order to recommend appropriate management strategies.

B+WISER and USFS conducted a technical workshop on Trail and Camp Management where more than 40 representatives from various national and local government agencies, IP groups, mountain guides, and porters defined trail and camp classes and their respective standards.

The six MANP LGUs adopted the trail and camp standards. Using these standards, Kidapawan LGU have also established a trail and camp network that outlines levels of difficulty and access to facilities , which provide mountaineers, social hikers and families the opportunity to choose the trail appropriate for their desired outdoor experience. Other LGUs are in the process of following Kidapawan example.

As a result of the workshop, trails were classified according to level of development and attributes (traffic flow, trail width, constructed features, signs, level of difficulty, etc.) while camps were classified according to number of campers and camp amenities (fixtures for washing, comfort, tent, cooking and vending areas). These classifications became the basis for a trail and camp management master plan for Mt. Apo that was approved by the PAMB in December 2016.

Mt. Apo, the highest peak in the Philippines, is one of the most popular hiking destinations in the Philippines.



LGU/TRAIL	CAMP KEY ●=CLASS 1; ●=CLASS 2; ●=CLASS 3; ◉=CLASS 4				
Magpet/Bongolanon (Bo)	Tausuvan (Bo1)	Anos (Bo2)	Linanggasan (Bo3)	Bobong (Bo4)	Kawayanan (Bo5)
Digos/Kapatagan (K)	Mainit (K1)	Paradise (K2)	Godi-Godi (K3)		
Makalala/New Israel (N)	New Israel (N1)	Makalangit (N2)	Mt. Zion (N3)	Maag (N4)	
Kidapawan/Mandarangan (M)	Mandarangan (M1)	Mati-Ao (M2)	Koong (M3)		
Santa Cruz/Sibulan (S)	Tinikaran 1 (S2)	Tinikaran 2 (S2)	Alamaciga (S3)		
Bansalan/Balutakay (Ba)	Bobo (Ba1)	Obo (Ba2)	Reyes (Ba3)		

LGUs improved Guided Self-Assessment (GSA) scores

Twenty-four of the 26 LGUs in the seven original Program sites that conducted their second Guided Self-Assessments (GSA) increased their GSA scores compared to the baseline scores. The improvement in scores was due to established offices dedicated to forest management, formulated policies to conserve specific endangered species and mobilized community forest guards for forest protection through the assistance of the Program. Table 2 below shows the distribution of the LGUs per program site.

TABLE 2. LGUS WHERE GSA ON STATE OF LOCAL ENVIRONMENTAL GOVERNANCE WERE CONDUCTED

Oriental Mindoro		Mt Kitanglad		Northern Sierra Madre		Upper Marikina and Kaliwa		Quinali Watershed		Mount Apo	
Pola		Lantapan		San Mariano		Tanay		Ligao		Magpet	
Socorro		Malaybalay		Tumauini		General Nakar		Guinobatan		Santa Cru	
Victoria		Sumilao		Palanan		Antipolo		Oas		Bansalan	
		Libona		San Pablo		Rodriguez					
				Isabela Province							
				Cabagan							
				Divilacan							
				Maconacon							
				Ilagan							

Increased GSA Score No Change in GSA Score Decreased GAS Score

PAMBs improved Management Effectiveness Tracking Tool (METT) scores

From 2013 to 2016, five out of six PAMBs that performed repeat assessments, improved their METT scores. The improvement was a result of integrating the FCAs in the PA's resource management plans, building capacity on the use of Lawin, DENR allocating funds for forest protection and forest patrolling in the PAs.

The sixth PAMB (NSMNP) sustained its 2013 overall METT score but did not show improvement. This can be attributed to new LGU personnel who are not yet up to speed on their roles and responsibilities as PAMB members. The PA managers prepared another action plan for adaptive management in order to strengthen their management effectiveness.

Protected area environmental law enforcement handbook

The Program completed the Protected Area Environmental Law Enforcement Handbook. The BMB will prepare a Technical Bulletin on the adoption of the handbook for all PAs in the country by the first quarter of CY 2017.

Develop conservation financing models

Private sector partnership

The partnership that the Program forged with EDC is a milestone in terms aligning private company-led forest protection and conservation efforts with the national forest protection strategy. Contributing PhP 6.5 million to the partnership, the company with the technical assistance of the program trained its forest rangers in Mt. Apo and Leyte on the implementation of Lawin.

Developing and supporting PES mechanisms

The Program developed a PES model for Bago City in the Province of Negros Occidental to provide sustainable financial to support the forest protection efforts in the city. Supported by local legislation developed with technical assistance of the Program, the Bago City government collects an environmental protection fee from water users to fund environmental protection efforts to address forest threats such as illegal tree cutting and charcoal making. In November, the City signed a collection agreement with 44 irrigation associations so that the associations will collect the applicable fees from their rice farmer members and submit them to the city treasurer's office. For their collecting services, each irrigation association will receive a 10 percent commission to cover administrative costs. In order to disburse the funds collected through the user fee in line with defined environmental protection activities under the Forest Conservation Area Plan, the Bago City government will partner with people's organizations from targeted forest communities, the direct beneficiaries of the funds. The communities will support forest protection either directly through patrolling or indirectly through livelihood activities. The city expects to collect PhP 5 to 8 million annually through this PES.

Public sector partnerships

Other conservation financing models developed by the Program during the year involved the public sector. Through an MOU, the Program entered into a partnership with the NPC, a government-owned and controlled corporation, primarily engaged in power generation, to use Lawin to protect ten watersheds where the company operates. Under the partnership, nearly 180,000 ha of natural forest within Luzon and Mindanao will be placed under improved protection. NPC will contribute around PHP 26 million to support the protection and conservation efforts, while B+WISER will also provide an estimated PHP 6.2 million in technical assistance to help establish and implement Lawin.

The Program forged a tri-partite partnership between B+WISER, DENR, and the Department of Social Welfare and Development (DSWD) to restore and protect forests in the Province of Oriental Mindoro. The partnership is a convergence of the Philippine government's massive reforestation program, the National Greening Program led by DENR and DSWD's sustainable livelihood program, Pantawid Pamilya Pilipino Program (4Ps). It allowed the agencies to share resources to protect more than 800 ha of watersheds and mangroves, while providing economic benefits of about PhP 6 million to approximately 1,300 members of the Mangyan community, an IP group that participated in the activities under the partnership. The partnership, the first of its kind in the region serves as a model for inter-agency collaboration and improves the economic situation of 4Ps beneficiaries, while ensuring the maintenance of areas under DENR's National Greening Program and its Mangrove and Beach Forest Development Program.

Developing and implementing user fee models

The MKNP and NNNP PAMBs adopted new user fee models as a system to collect funds from economic and recreational activities conducted in the PAs, such as tourism or land use for existing and new commercial activities (e.g. filming and photography, telco towers). The Program helped to develop these models by assessing which fees are applicable in each PA (entrance fee, development fee, research fees etc.), developing a formula to determine rates (e.g. the development fee), and formulating guidelines on how to proceed with actually charging a fee. The newly adopted user fee models are now approved, legally-binding policies for the PAs governed by the PAMBs. The collected funds will enable the PAMB to implement forest and biodiversity conservation activities complementary to the LGUs' initiatives. The Program will provide further technical support for the PAMBs to use these funds to achieve conservation targets. The Program also developed a revenue-sharing partnership in Fuyot Springs Natural Park in Ilagan City in NSMNP between the LGU and DENR where 15% of entrance fee proceeds will be allocated to the PAMB to finance forest protection activities within the park. In August, the DENR designated a Special Collecting Officer to collect and receive from Ilagan City, on a monthly basis, the 15% share from the park's entrance fees and to deposit the collected funds into the PAMB's IPAF Trust Fund for use in the protection and management of Fuyot Springs Natural Park.

Working with NGOs

B+WISER trained staff from the NGO Friends of the Environment for Development and Sustainability (FRENDS) in Nueva Viscaya to implement Lawin. FRENDS is involved in the management of a Local Conservation Area where most of the natural forests in the area are located, and Lawin will help them work closely with the local DENR to protect the remaining natural forests in the area.

In partnership with Project Greenshield, implemented by the *Tanim Kalikasan* and funded by the Philippine Tropical Forest Conservation Foundation, the Program planted 8,225 bamboo cuttings on the 41.05 kilometers delineated boundary of the forest conservation areas in the provinces of Rizal and Quezon. Under the partnership, equipment and tools to implement Lawin were procured and turned over to the respective barangay-level patrollers.

Helping LGUs access resources from the PSF

The Program assisted the local government of Ligao to prepare and submit a project proposal to the People's Survival Fund (PSF), which is a PhP 1Billion Philippine government fund for climate change adaptation projects made available for LGUs in the country. The proposal requested PhP 189 million to fund activities that increase the climate resilience of local communities of Ligao City. By the end of 2016, the proposal was still under review by the PSF. The program will also assist eight LGUs in Mt. Kitanglad to access the PSF and is planning to conduct a PSF proposal writing workshop in the first quarter of 2017.

"We are doing our best because we want to go back to our bountiful situation before."

— Rosalia Bermoy, community partner

Conduct communication campaigns

Program visibility

Through a concerted effort of communication materials, national and international event participation, media engagement and online presence, the Program raised awareness about forest and biodiversity conservation and resource management among a diverse audience. In 2016, the Program:

- Updated B+WISER and Lawin-related information material;
- Produced 59 short articles, summarized in four quarterly News Brief magazines;
- Contributed four articles to DENR's Foreign-Assisted Special Program division;
- Participated in six national and international events on protected area management, biodiversity, and technology innovation;
- Was covered 49 times in national and international media outlets;
- Won the USAID photo contest and is now part of the USAID 2017 calendar.

Online presence and social media

The Program revised its DENR-hosted website to improve reader experience by posting weekly updates, information materials for download, and links to the Program's social media platforms. On social media, the Program continued its consistent visibility with an increased audience. The Program's Facebook page increased its 2015 followership by 50 percent, counting 3,568 followers at the end of 2016. The Twitter account doubled its followers to 227 users. Over the year, the FB page has reached more than a million views on all of its posts while Twitter accumulated more than 200,000 views. This improved performance can be attributed to the overall social media strategy, which in 2016 consisted of:

- Six successful hashtag campaigns: #iSupportLawin, #ProtectWatersheds, #Sign4Climate, #SheSupportsLawin, #WeAreIndigenous, #100BWISERStories;
- Online audience engagement: an online mascot naming contest, conveying information about the Sustainable Development Goals, and sharing project experiences from Lawin implementers and Program beneficiaries through regular "My Story" posts;
- Received Facebook confirmation to be an authentic page (grey badge);
- Production of short video clips on FB and YouTube;
- Development of infographic material series on Forest Conservation Area Planning, Purpose-driven Patrolling, and Data Management;
- Cross-referencing the Program's, USAID's, and other relevant actors' online post for wider reach

Multimedia storytelling

The Program increased the use of audio and video—in addition to photo and text—to communicate achievements in forest and biodiversity conservation, public and corporate partnerships in forest protection, and women and IP inclusion in NRM across various communication platforms.

Implement crosscutting activities

Gender and inclusion

During 2016, the Program maintained its gender-responsive identity as categorized in the Official Development Assistance – Gender and Development (ODA-GAD) report submitted to the National Economic Development Authority (NEDA). The Program continuously responded to equal opportunity challenges for women and IPs to participate in NRM and forest and biodiversity protection. Such challenges, identified through studies conducted at the start of the Program, include low participation of women and IPs in NRM, limited opportunity to influence resource management policies, lack of livelihood opportunities, and absence or poor integration of indigenous knowledge and practices to NRM and climate resilience systems. The introduction of Lawin as a comprehensive and inclusive forest protection system, and the Program's targeted partnerships with women and IP-focused organizations helped improve women and IP's meaningful inclusion in resource management during 2016.

In comparison to the previous years, the number of women in NRM drastically improved. The number of trained female forest patrollers and technicians increased from 141 in 2015 to 2,041 in 2016. Beyond quantity, the quality of women's participation in forest protection has improved. Lawin provided new opportunities for engagement in forest conservation area and patrol planning, conduct of actual patrols and data management. Through the Program's technical facilitation work starting in 2015, five out of seven PAMBs in the original sites have now adopted resolutions to have reserved seats for women and IPs as direct PAMB members; allowing women and IPs to actively shape resource management policy and governance. In addition, the NSMNP PAMB passed a Special Orders (covering periods 2017-2022) to reserve seats for women and IP representatives in

technical working groups to oversee the implementation of PAMB activities.

The Program engaged DENR and LGU stakeholders in an informed dialogue on the importance to either provide financial incentives (e.g. allowances) or hire Forest Protection Officers (FPO) from IP groups residing in the protected areas. As a result, more than 40 Lawin-trained IPs in Mt. Apo were hired by DENR with a monthly salary of PhP 8,500. Additionally, more than 120 trained IPs now receive either a regular or an increased monthly honorarium for their patrolling work, improving their access to economic benefits in line with forest protection activities in Mt. Apo and Mt. Kitanglad.

Annex 2 presents a detailed summary on how Program interventions have successfully addressed the key challenges for gender and inclusion identified in 2013.

Technical papers

The Program presented two technical papers in two conferences during the year: "Improving enabling conditions for communities and forest ecosystems through science-community-policy interface: the case of environmental law enforcement protocol development under the Lawin forest and biodiversity protection system" presented at the international workshop organized by the South East Asia Research Center for Agriculture in Los Banos, Laguna and "Protected Area law enforcement, from detection to resolution: review of lessons from previous and emerging initiatives" at the Second National Protected Area Conference organized by the BMB in Manila

The Program also ran a species distribution model on nine tree species in MKRNP and six tree species in MANP using Maxent software. The Species Distribution Modelling identifies areas that are suitable for the survival of the tree species based on climatic, edaphic (soil-related), topographic, vegetation-related and anthropogenic variables. The information in this technical paper can be used by resource managers to formulate management strategies to ensure the survival of these tree species.

Framework for voluntary carbon offset mechanism

The Program coordinated its efforts to establish a voluntary carbon offset mechanism with the Building Low Emissions Alternative to Economic Resilience and Sustainability (B-LEADERS) Project, which is working on a similar undertaking. Additionally, B+WISER initiated negotiations with the World Land Trust on a potential forest-based carbon offset mechanism focusing on biodiversity and natural forest conservation in line with Program objectives.

Grants

The Program worked on three grants during the year: 1] to a farmers cooperative in the Tumauini Watershed Forest Reserve for the restoration of 100 ha of degraded forest land through agro-forestry, 2] to the San Carlos Development Board for the restoration of another 50 ha of degraded forest in San Carlos City, Negros Oriental and 3] to KIN to facilitate research and documentation on tribal forest management practices in the Bukidnon area that aims to preserve tribal knowledge and harmonize government and tribal protection activities in areas where there are ancestral domain claims or titles. The grant in Tumauini is 95% complete, while the grant in San Carlos City is complete. The MKRNP PAMB adopted a resolution to integrate the documented tribal norms and policies into the park's management processes.

Framework for National Forest Monitoring Program

The Program supported the process to establish the National Forest Monitoring Program (NFMP) of the FMB. Together with USFS, the Program hosted Rob Waterworth and Rob de Ligt from the Mullion Group in July 2016 to provide additional assistance to FMB in its efforts to design the country's forest Measurement, Reporting and Verification system. The meetings and exchanges among the Program, USFS, Food and Agriculture Organization's Reducing Emissions from Deforestation and Forest Degradation (REDD+) Targeted Support Program, Mullion Group, and FMB led to a National Forest Monitoring Program (NFMP) Framework that harmonizes NFMP/Monitoring, Reporting and Verification-related efforts. The draft framework prepared by the Mullion Group (See Figure 7 below) has been submitted to FMB. A decision to move forward or not with the implementation of the proposed framework is expected during the first quarter of 2017.

The Program also worked with the USFS Climate Fellow and DENR counterparts to facilitate the signing of a Letter of Intent (LOI) among FMB, the Global Land Cover Facility of the University of Maryland and USFS. The LOI has two key objectives:

- Produce map products that can be used for multiple purposes by FMB, including MRV activities for REDD+ and Forest Reference Emission Level as part of the NFMP, and other forest management uses such as biodiversity/habitat mapping and degradation; and
- Build capacity at FMB for eventual independent production of the aforementioned maps. The schedule of activities under the proposed LOI including the schedule to produce forest canopy cover dataset using Landsat-based dataset calibrated with Philippines data gathered through the Philippine – Light, Imaging, Detection and Ranging program.

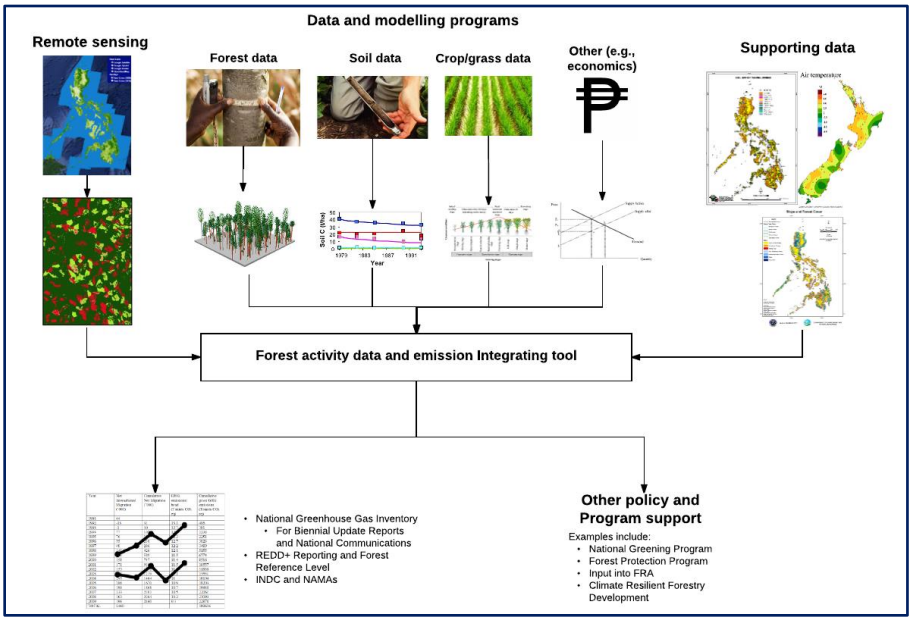


FIGURE 5. PROPOSED FRAMEWORK FOR THE PHILIPPINE NATIONAL FOREST MONITORING PROGRAM

Monitoring and evaluation

The Program, with the assistance of consultants from the Measuring Impact Project, reviewed the evaluation learning questions formulated in 2015. The Program simplified and revised its theory of change results chain diagram in light of the Philippine government's adoption of Lawin as part of its national strategy for forest and biodiversity protection. Consequently, the Program trimmed down the learning questions from thirteen to six, as some of the learning can be derived from the other questions. The Program started to collect information on the variables for each learning question.

Together with FMB, the Program developed a Google Drive-based system to track progress on the implementation of Lawin at all CENROs. The spreadsheet is jointly updated by FMB and B+WISER and contains information on forest cover and forest cover change and the status of forest conservation area plans, patrol plans, actual patrolling, data management, and establishment of response protocols to address observed threats. User upload patrol data to the Google Drive so that they can be accessed and analyzed by the FMB Central Office. This system, however, will be phased out once SMART Connect has been successfully established.

Environmental compliance monitoring

Two grant activities, which are part of the Program's restoration support intervention, were subject to environmental compliance monitoring. Forest restoration activities were assessed with "Negative Determination with Condition" during the Initial Environmental Examination (IEE), which require an Environmental Mitigation and Monitoring Plan (EMMP), describing measures for mitigating potential negative effects to the environment. The grant activities, which were implemented in the Tumauini Watershed near the NSMNP and in the Mindoro Oriental Watersheds as part of the DSWD-DENR Partnership, established showcase areas for best practices in forest restoration. The Program prepared grant specific EMMPs which stipulate measures to mitigate adverse effects to the environment. This included the use of site matching tree species, the proper disposal of plastic bags used for seedlings and the avoidance of erosion through proper site preparation techniques. The field teams of the Program guided the grantees in EMMP compliant implementation of the restoration activities and monitored both activities against the respective mitigation measures. The implementation of the activities were in compliance and adhered to mitigation measures stipulated in the EMMP.

"DSWD does not only respond to health and education needs, but is also concerned with the environment."

— Katrina Pedro, DSWD Project Development Officer II

II. PROGRESS AGAINST FISCAL YEAR 2016 PERFORMANCE TARGETS

The Program achieved its CY 2016 targets in five out of the 12[1] performance indicators (PI) (Table 3):

- PI 1: Number of hectares under improved natural resources management
- PI 3: Number of laws, policies, strategies, plans, agreements, or regulations addressing biodiversity conservation proposed, adopted or implemented
- PI 4: Number of biodiversity conservation and watershed-related research publications and technical papers produced
- PI 9a: Number of PAMBs with increases in METT scores
- PI 8: Number of people with increased economic benefits derived from NRM and conservation as a result of USG assistance

The Program surpassed its CY 2016 targets in five out of the 12 PIs:

- PI 7: Amount in USD of investments leveraged from public and private sources
- PI 9b: Number of LGUs with increases in GSA scores
- PI 10: Number of person hours of training in NRM and climate change
- PI 11: Number of days of technical assistance in NRM and climate change
- PI 12: Number of institutions with improved capacity for disaster management in highly vulnerable areas

The target for PI 7 was surpassed because of the PhP 30 million investment by the Philippine government for the nationwide Lawin roll-out, which was not included in work plan targets. The field teams demonstrated greater interest in conducting GSAs, resulting in a more assessments than expected with many LGUs improving their GSA scores. The Lawin roll-out resulted in a series of training activities that increased the figures for both PI 10 and 11. The Program anticipated the figures for PI 12 would come from the LGUs in one site (MKRNP), but an LGU in another site (NSMNP) expressed interest to integrate the results of the vulnerability assessments into their plans and activities. The additional LGU accounts for the more than 10% variance.

The Program did not meet the FY 2016 target for two PIs:

- PI 5: Number of hectares of supported forest restoration initiatives
- PI 6: Amount of CO_2 equivalent reduced and/or sequestered in metric tons

The Program did not meet the CY 2016 targets for "number of hectares of supported forest restoration initiatives" and "amount of CO_2 equivalent reduced and/or sequestered in metric tons" (PIs 5 and 6, respectively) due to the delayed release of government funds early in the year to cover allowances of community forest guards, which resulted in irregular forest patrols. Accordingly, the AFOLU calculator was re-run taking into account these patrol delays which resulted in lower than expected amount of CO_2 equivalent reduced and/or sequestered in metric tons. The issue was resolved with the national roll-out

[1] Performance indicator 9 is subdivided into two: number of PAMBs with improved METT scores and number of LGUs with improved GSA scores

of Lawin as DENR allocated substantial funds for forest protection, including resources for forest patrols starting in June 2016 and continuing through 2017.

TABLE 3. CY 2016 PERFORMANCE TARGETS AND ACHIEVEMENTS

#	Indicators	Target (CY 2016)	Actual				Total	% achieved (CY 2016)
			Q1 (Jan-Mar)	Q2 (Apr-Jun)	Q3 (Jul-Sep)	Q4 (Oct-Dec)		
1	Number of hectares under improved natural resources management	259,536	78,390	93,313	88,824	17,777	278,304	107.23%
2	Number of hectares showing improved biophysical conditions	n/a						n/a
3	Number of laws, policies, strategies, plans, agreements, or regulations addressing biodiversity conservation proposed, adopted or implemented	12	5	2	5		12	100.00%
4	Number of biodiversity conservation and watershed-related research publications and technical papers produced	3		2	1		3	100.00%
5	Number of hectares of supported forest restoration initiatives	33,360	12,633	13,762	1,033	361	27,789	83.30%
6	Amount of CO2 equivalent reduced and/or sequestered in metric tons	1,870,000			1,540,913		1,540,913	82.40%
7	Amount in USD of investments leveraged from public and private sources – biodiversity conservation	1,104,000	224,601	820,308	548	631,267	1,676,724	151.88%
8	Number of people with increased economic benefits derived from NRM and conservation as a result of USG assistance	9,500	1,535	925	3,335	3,755	9,550	100.53%
9a	Number of PAMBs with increases in METT scores	5			5		5	100.00%
9b	Number of LGUs with increases in GSA scores	13	4	2	21		27	207.69%
10	Number of person hours of training in NRM and climate change	10,000	5,070	23,032	34,190	3,104	65,396	653.96%
11	Number of days of technical assistance in NRM and climate change	360	208	212	330	119	869	241.39%
12	Number of institutions with improved capacity for disaster management in highly vulnerable areas	7			8		8	114.29%

III. FINANCIAL PERFORMANCE

The project has completed 16 quarters of implementation, representing the 80% of the total 5-year performance period. The project received a costed modification during this past period, increasing the overall contract ceiling. Taking into account the new contract ceiling, the project has expended approximately 81% of total contract funds through this point.

IV. ANNEX 1: PROGRAM PROGRESS ACROSS DENR CENROS IN THE COUNTRY

Region	# of CENROs[2]	Total Forest cover (ha)	Elements of improved natural resources management			
			Science-based assessments	Enhanced planning	Capacity development	Implementation of innovation
1	8	124,477	8/8 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 3/8 (38%) have initially identified threats	8/8 CENROs and implementing PENROs (100%) have complete drafts of forest conservation area plans	47 male and 10 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 8/8 CENROs/implementing PENROs (100%)	3/8 (38%) have patrol data
2[3]	17	1,044,508	17/17 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 13/17 (76%) have initially identified threats	12/17 CENROs and implementing PENROs (71%) have complete drafts of forest conservation area plans	102 male and 55 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 17/17 CENROs/implementing PENROs (100%)	13/17 (76%) have patrol data
3	13	520,598	13/13 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 5/13 (38%) have initially identified threats	13/13 CENROs and implementing PENROs (100%) have complete drafts of forest conservation area plans	142 male and 33 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 13/13 CENROs/implementing PENROs (100%)	5/13 (38%) have patrol data
4a	10	269,656	10/10 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 6/10 (60%) have initially identified threats	8/10 CENROs and implementing PENROs (80%) have complete drafts of forest conservation area plans	37 male and 22 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 10/10 CENROs/implementing PENROs (100%)	6/10 (60%) have patrol data
4b	13	915,664	13/13 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 7/10 (70%) have initially identified threats	13/13 CENROs and implementing PENROs (100%) have complete drafts of forest conservation area plans	202 male and 40 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 13/13 CENROs/implementing PENROs (100%)	7/10 (70%) have patrol data
5	11	208,016	11/11 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 8/11 (73%) have initially identified threats	6/11 CENROs and implementing PENROs (55%) have complete drafts of forest conservation area plans	130 male and 46 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 11/11 CENROs/implementing PENROs (100%)	8/11 (73%) have patrol data

[2] And implementing PENROs

[3] Original sites are located in the highlighted regions.

6	8	187,320	8/8 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 7/8 (88%) have initially identified threats	7/8 CENROs and implementing PENROs (88%) have complete drafts of forest conservation area plans	67 male and 47 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 8/8 CENROs/implementing PENROs (100%)	7/8 (88%) have patrol data
7	5	62,066	5/5 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 5/5 (100%) have initially identified threats	5/5 CENROs and implementing PENROs (100%) have complete drafts of forest conservation area plans	48 male and 6 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 5/5 CENROs/implementing PENROs (100%)	5/5 (100%) have patrol data
8	12	514,465	12/12 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 2/12 (17%) have initially identified threats	11/12 CENROs and implementing PENROs (92%) have complete drafts of forest conservation area plans	82 male and 14 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 12/12 CENROs/implementing PENROs (100%)	2/12 (17%) have patrol data
9	9	176,918	9/9 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 8/9 (89%) have initially identified threats	9/9 CENROs and implementing PENROs (100%) have complete drafts of forest conservation area plans	56 male and 17 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 9/9 CENROs/implementing PENROs (100%)	8/9 (89%) have patrol data
10	12	377,859	12/12 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 8/12 (67%) have initially identified threats	11/12 CENROs and implementing PENROs (92%) have complete drafts of forest conservation area plans	56 male and 36 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 12/12 CENROs/implementing PENROs (100%)	8/12 (67%) have patrol data
11	12	428,717	12/12 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 3/12 (25%) have initially identified threats	11/12 CENROs and implementing PENROs (92%) have complete drafts of forest conservation area plans	37 male and 18 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 12/12 CENROs/implementing PENROs (100%)	3/12 (25%) have patrol data
12	8	249,050	8/8 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 6/8 (75%) have initially identified threats	7/8 CENROs and implementing PENROs (88%) have complete drafts of forest conservation area plans	105 male and 20 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 8/8 CENROs/implementing PENROs (100%)	6/8 (75%) have patrol data
13	12	683,112	12/12 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010	10/12 CENROs and implementing PENROs (83%) have complete drafts of forest conservation area plans	103 male and 30 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 12/12	6/12 (50%) have patrol data

			NAMRIA data and 6/12 (50%) have initially identified threats		CENROs/implementing PENROs (100%)	
NIR	5		5/5 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 5/5 (80%) have initially identified threats	1/5 CENROs and implementing PENROs (20%) have complete drafts of forest conservation area plans	89 male and 29 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 5/5 CENROs/implementing PENROs (100%)	4/5 (80%) have patrol data
CAR	14	773,192	14/14 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 10/14 (71%) have initially identified threats	6/14 CENROs and implementing PENROs (43%) have complete drafts of forest conservation area plans	52 male and 25 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed in 14/14 CENROs/implementing PENROs (100%)	10/14 (71%) have patrol data
NCR	1	2,214	1/1 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data but none has initially identified threats	1/1 implementing PENROs (100%) have complete drafts of forest conservation area plans	28 male and 17 female forest rangers, technicians and resource managers trained in Lawin. Site-level coaching completed (100%)	No patrol data yet
Totals	170	6,537,824[4]	170/170 CENROs and implementing PENROs (100%) have completed forest cover change analysis based on 2003 and 2010 NAMRIA data and 102/170 (60%) have initially identified threats	139/170 implementing PENROs (82%) have drafted forest conservation area plan	1,517 male (74%) and 524 female (26%) forest rangers, technicians and resource managers trained in Lawin.	102/170 (60%) have patrol data

[4] Does not include the Autonomous Region in Muslim Mindanao, which has 301,895 hectares of natural forests.

ANNEX 2. Gender and IP inclusion challenges, strategies and results

Gender and Indigenous Peoples inclusion challenges	Program interventions to address identified issues in 2016	Results
Low participation of women and IPs in NRM and forest protection	• Revising the Gender Program Implementation, Management, Monitoring and Evaluation (PIMME) tool to capture Lawin's new opportunities for women engagement	• Awareness among field teams to focus on new entry points for women and IP inclusion during Lawin implementation
	• Actively promoting entry points for women and IP participation in Lawin implementation and leveraging women's leadership of PENROs/CENROs to engage more women Lawin users • Engaging women and IP tour guides and female forest guards (e.g. Kitanglad Guard Volunteers) as patrollers • Encouraging female DENR forest technicians to be trained as data managers • Incorporating inputs to the ELE protocols from women and IP local chief executives/staff, NGO and other organization leaders	• Increase in the number of women DENR/LGU personnel and volunteers from 2015 to 2016: 8.51 % (n=141) to 25.57 % (n=2,041) forest patrollers and technicians trained in Lawin
	• Training women and IP ELE volunteers and support their participation as Lawin patrollers and data managers at the CENRO level.	• 184 trained female ELE volunteers are qualified to be deputized as environmental law enforcers.
	• Additional training tailored for IP Lawin patrollers to close the knowledge gap and language barriers to handle Lawin's underlying technology and the English commands in the recording gadgets	• Lowered barrier to entrance to become Lawin forest patrollers, thus enabling IPs to take on an active part in NRM and forest protection.
	• Launching the #SheSupportsLawin campaign on social media and during on-site coaching activities to highlight female leadership and participation in Lawin	• Providing examples to help re-shape gender stereotypes in NRM and forest protection. The campaign accumulated 76,000 views and garnered the active support of 1,019 users who liked, reacted, commented and shared these posts.
	• Proposal writing support and technical assistance to girl students and women teachers, trained as eco-rangers and eco-guardians by the Program in 2015 (32 female / 22 male students, and 43 female / 13 male teachers), to continue community-based forest projects.	• Launch of a school-based tree seedling nursery in Oriental Mindoro, spearheaded by a 17-year old female youth leader.
Lack of equal opportunities for the meaningful participation of women and IPs in NRM policy and governance	• Lobbying with the NSMNP PAMB, through discussions on gender and IP inclusion, to reserve seats for women and IP representatives in TWGs to oversee the implementation of PAMB activities (this is in addition to the approved resolutions in 5 out of 7 original sites to reserve seats for women and IP as direct PAMB members from 2015).	• Reserved seats for women and IPs instituted through Special Orders covering periods of 2017-2022 in NSMNP.
	• Instituting women and IP barangay captains as key signatories in agreements (e.g. MOUs) covering ELE protocols.	• Women and IP viewpoints are being integrated in ELE protocols governing the punitive and non-punitive approaches to environmental violations.

	• Specifically identifying women and IP stakeholders and leaders to be invited in PAMB and NRM-related activities.	• Women and IP leaders serving as primary facilitators of activities (e.g. FMU establishment, PAMP enhancement, User Fees Discussion, GSA/METT workshops).
Lack of women and IPs' access to economic/livelihood opportunities due to: 1. Preference to men-led organizations Lack of track record for project engagement 2. Lack of start-up capital 3. Absence or lack of the group's entrepreneurial skills	• Working with like-minded program partners as project proponents that share the advocacy to support women as primary stakeholders of Program partnerships. • Working with government agencies (e.g. DSWD) to orient and formalize (legally and administratively) women and IP community groups. • Lobbying with DENR and LGU stakeholders to either provide financial incentives (e.g. allowances) or hire Forest Protection Officers (FPO) from IP groups residing in the protected areas.	• Women engaged as primary participants and economic beneficiaries of Program partnerships (e.g. the Sitio Maguli Marginal Farmers Producers Cooperative-02 grant, Project Green Shield, DSWD-DENR-USAID partnerships, Tumauini Watershed Forest Reserve Partnership, PTFCF partnerships). These partnerships focus on forest restoration, seedling production and maintenance activities. • More than ten DOLE-registered Sustainable Livelihood Program (SLP) Associations in Oriental Mindoro, mainly composed of women and IPs, now able to enter into legal contracts. • 43 IPs in Region 11 and 12 hired by DENR as full time FPOs with a monthly salary of P8,500. • Region 11 additionally hired 5 members of the Green Brigades to conduct Lawin patrolling in Mt. Apo. Each member receives a monthly allowance of P3,500. • 123 Lawin-trained IP Kitanglad Guard Volunteers in Region 10 conducted regular patrols and received a honorarium of P5,000/month in 2016. • Highlighting the effectiveness and transparency of the Lawin system, 5 out of 8 LGUs agreed to increase KVG's honorarium to P10,000/month in 2017. (For the first 3 months, the 5 LGU's will shoulder the increased honorarium. Pending finalization, the expenses will be shouldered by the Provincial Government starting Q2).
Absence or poor integration of indigenous knowledge and practices to NRM and climate resilience systems	• Supporting KIN to complete the documentation and institutionalization of intergenerational forest protection experiences of the Talaandig, Higaonon and Bukidnon tribes in Mt. Kitanglad.	• PAMB Resolution on Cultural Norms and Policies on Significant Areas, including its resource use, approved by the Kitanglad PAMB Executive Committee.